Attention:
Price change per February 1, 2008. For actual prices, see our Price List or the Internet.

TextPLC™

TEXT PANEL WITH BUILT-IN PLC

EZTextPLC™

The Most SENSIBLE One-Piece Automation Controller for a Small Machine

What is EZTextPLC?

EZTextPLC is the most powerful combination of a PLC and an Operator Interface in a very compact package. It utilizes EZPLC's base and thus capable of all the features present in our EZPLC and uses our 'mix-match' modular EZI/O to deliver a truly compact control.

What does it have?

- Choice of five EZText Operator Interfaces
- Up to 32 I/O PLC with EZ-220/EZ-420/EZ-220V
- Up to 48 I/O PLC with EZ-220P/EZ-220PV
- Heavy duty mounting gasket
- PLC message indicator LED
- Extremely flexible 8 point I/O modules
- 64K PLC Program memory
- Extremely fast scan time: 3ms for 1k
- Powerful Ladder Logic Instruction Set
- One extra RS422/485 Comm. port
- Supports ASCII In/Out
- Built in Real Time clock/calendar
- Extremely cost effective Ethernet, Devicenet and Profibus options
- Extremely cost effective Analog I/O
- 100 KHz counter module
- Interrupt Input module
- Save as much as 35% on panel space

Where does it make sense?

EZTextPLC can be used to configure a small control system that require a Text type display. It eliminates the need to buy and install a PLC and Operator Interface separately and thus reduces the electrical panel space, makes the control system extremely compact and cost effective. With EZTextPLC starting at €348 for a 32 Digital I/O system (16 Dig In/16 Dig Out), it is built to compete in the market of Embedded controllers without the hassle of "C" level programming or proprietary microprocessor boards. EZTextPLC uses EZI/O modules for I/O (starting at €19 for 8 Digital Out!) which can be chosen from a large variety of options including Analog I/O, High Speed Counter, Relay, and AC/DC combo modules.

2 Line 20 Ch. Text Panel with 32 Digital I/O PLC and Built-in RS422/485 Com. Port

€348

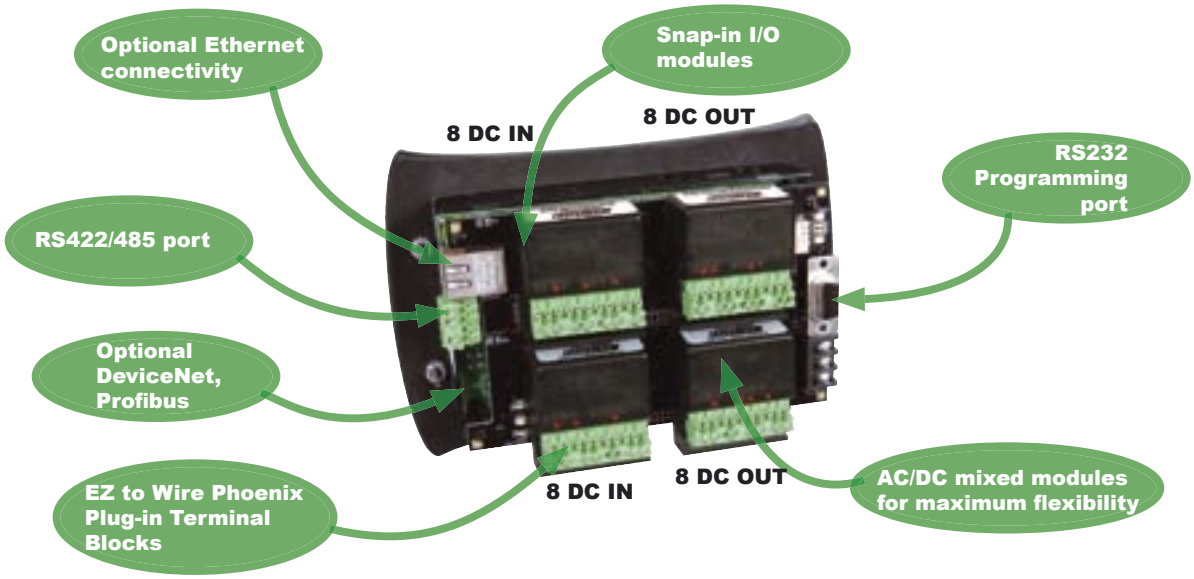
DeviceNet, Profibus or Ethernet Connectivity Options

+49 (0) 2161 464470

EZ Text PLC™ Look at what you get for €348..

- Two-line x 20-character LCD message display
- PLC message indicator LED
- Five user-defined buttons and LEDs
- Scroll data entry
- Built-in menu system reduces extensive ladder logic programming
- Up to three embeded variables on each message
- 16 24 VDC Digital inputs
- 16 24 VDC, 0.5 Amps Source outputs, Short circuit proof
- Snap-in 8 point I/O modules with status LED indicators
- Real-time clock and calendar
- CPU status indicator LED
- Low battery indicator LED
- 8192 variables, 8192 registers
- 64K byte of user memory
- 3ms Scan Time
- Two separate CPUs for PLC and HMI
- RS422/485 communication port built-in
- Optional DeviceNet or Profibus slave port
- Powerful instruction set
- Single programming port for both PLC and Panel
- Single EZTextPLC editor for only €49 with common tag database read
- 7.418" L x 5" W x 3.25" D for the complete package

LED that indicates that the message was triggered by PLC
Scroll through messages arranged as folders
Up to 256 messages Choice of LCD or wide viewing angle VFD
Five user defined pushbuttons and LEDs



EZ Text PLC™

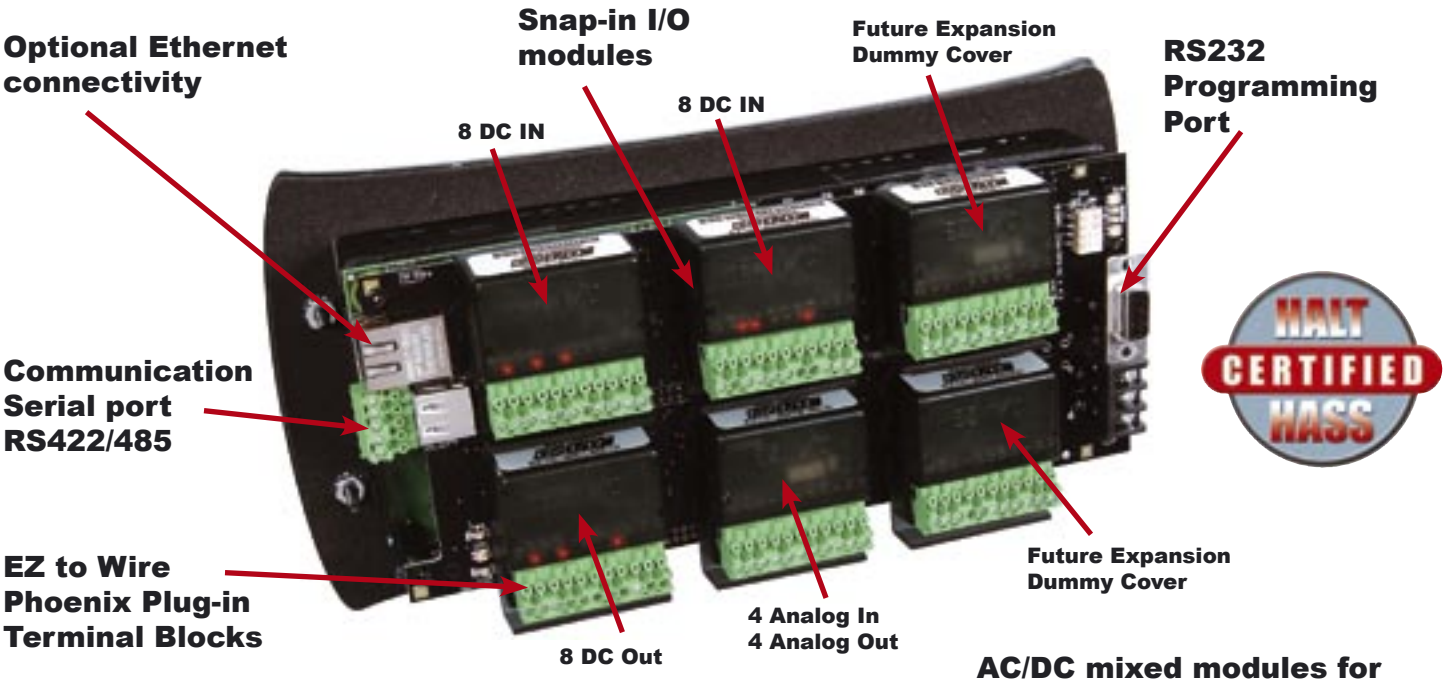
.. And what you get for €498

24 Discrete and 8 Analog I/O Built-in

- Two-line x 20-character LCD message display
- PLC message indicator LED
- Numeric keypad
- Five user-defined buttons and LEDs
- Scroll data entry
- Three tri-color LED annunciators
- Built-in menu system reduces extensive ladder logic programming
- Up to three embedded variables on each message
- (16) 24 VDC Digital inputs sink or source field selectable
- (8) 24 VDC, 0.5 Amps Source outputs, Short circuit proof
- (4) 12 bit Analog In
- (4) 12 bit Analog Out
- Up to 6 Snap-in 8 point I/O modules with status LED indicators, for a total of 48 I/O
- 3.5 mm Phoenix Removable terminal blocks for I/O
- Real-time clock and calendar
- CPU status indicator LED
- Low battery indicator LED
- Three PLC states: Run, Program, Run/Program with LED indicators
- 8192 variables, 8192 registers
- 64K byte of user memory
- 3ms Scan Time

€49 SOFTWARE

- Two separate CPUs for PLC and HMI
- RS422/485 communication port built-in
- Optional DeviceNet or Profibus Slave port
- Powerful instruction set
- Single programming port for both PLC and Panel
- Single EZTextPLC editor for only €49 with common tag database read
- 10” L x 5” W x 3.25” D for the complete package



HALT CERTIFIED HASS

+49 (0) 2161 464470

The Operator Interface is Extremely User Friendly

LED that indicates that the message was triggered by PLC
Superbright, tri-color, user programmable annunciators
Super Long-life key pad
Parts Type 1 ERROR
Process STOPPED
Up to 256 messages Choice of LCD or wide viewing angle VFD
Five User Defined Pushbuttons and LEDS
Scroll through messages arranged as folders

With PLC Performance You Will Find Only in PLCs Costing Thousands More!

8192 Registers
8192 Variables

64K
Available for Ladder & Memory

64k Byte User Memory

Most Micro PLCs have only a limited 8-16k memory. But not this souped up PLC! Some of the things you can do with this 64k byte memory:

- Store 2000 Messages
- Store 500 20 Variable Recipes
- Collect 10,000 Four Variable Data Points

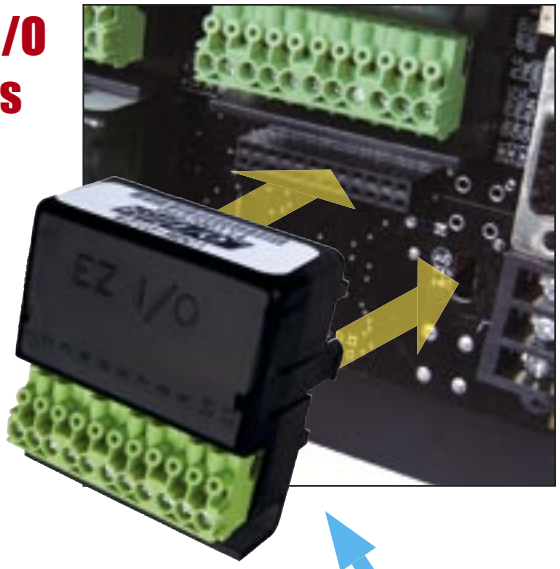
32 Bit, 40 MHz RISC Processor Dedicated to PLC Processing Only, with a Separate Processor for HMI

The EZText PLC has two processors, one for handling the PLC and its I/O, and another co-processor for handling the HMI functions. Even though the two processors cost more, we wanted to make sure that you have one of the fastest PLCs on your machine. This €348 Text Panel PLC rivals scantime specifications of the fastest full-blown PLCs.

EZ Text PLC™ We Looked At Every Detail!

Snap-in I/O Modules

Back side of EZI/O module



4 In/4 Out Wide Variety of Mix-n-Match I/O Modules

EZTextPLC offers the widest range of 4 In/4 Out I/O modules. Mix 4 DC In with 4 AC Out.

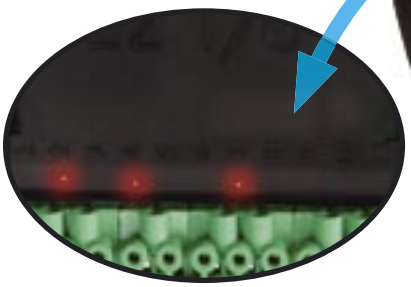
0.5 Amp Short Circuit Proof DC Outputs

This 2x2x1" ultra compact module has 8 DC Outputs rated at 0.5 Amp each that are short circuit proof!

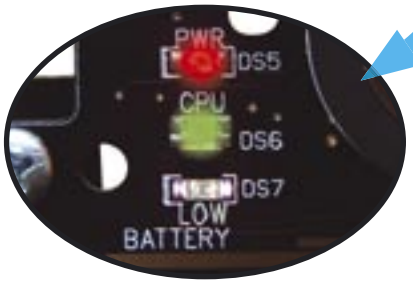
AC/DC Mixed Modules for Highest Flexibility

8 Outputs for €19

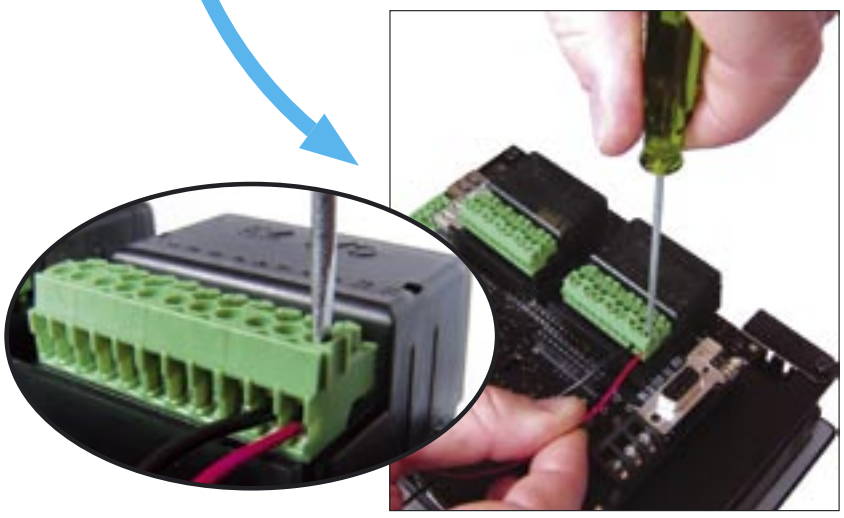
I/O Status LED Indicators



CPU Status Indicator LEDs



EZ to Wire Phoenix Plug-in Terminal Blocks



+49 (0) 2161 464470

Say "Goodbye" to Proprietary Microcontroller Boards!

This powerful combination of Operator Interface, high performance CPU and a very SENSIBLE real world I/O system makes EZTextPLC extremely competitive even when compared to Embedded Controllers or proprietary microcontroller boards.

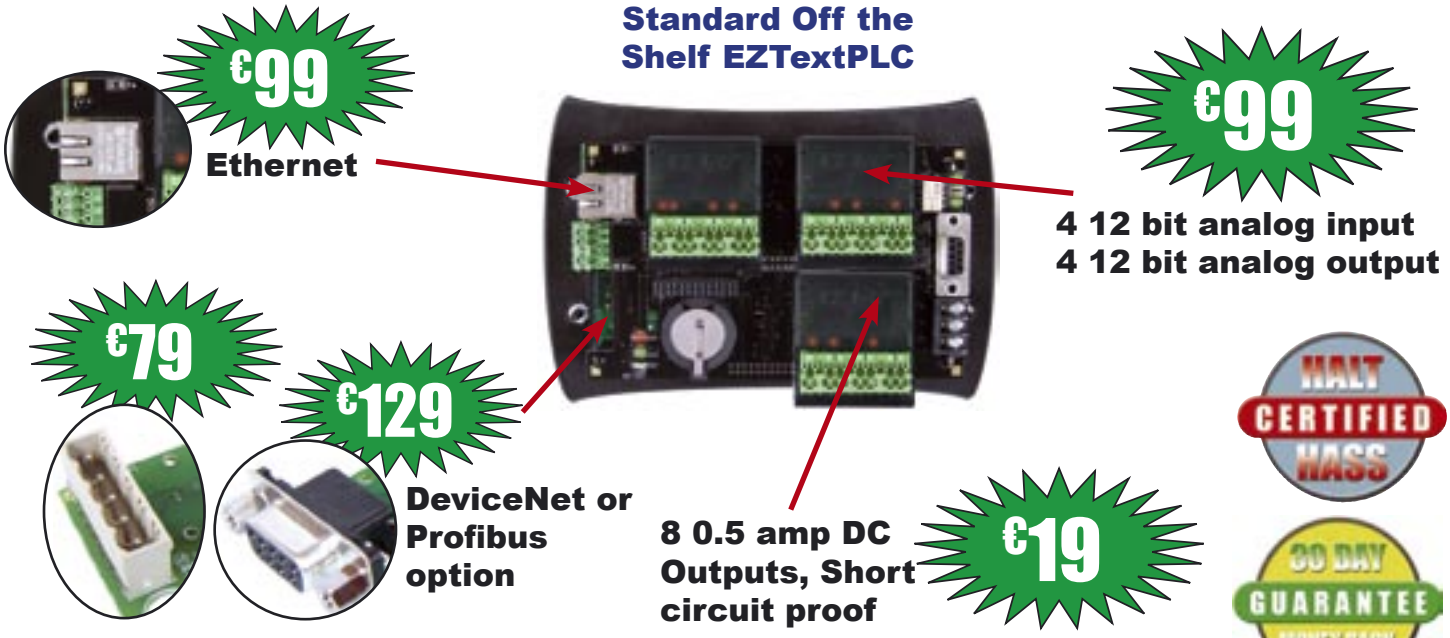
Many OEMs in the past designed their own microprocessor boards to achieve a low cost point for their high volume, low end machines. The proprietary software is hard to maintain costing the OEM major amounts of money to deal with obsolete parts or make any change. The EZTextPLC has achieved an incredible price point for CPU, I/O and network connectivity.

Proprietary Microcontroller boards and custom I/O

With the EZTextPLC, the 40MHz 32 bit RISC processor CPU with 64KB of memory, battery back-up, and a real time calendar costs less than €100.00 even in single unit quantities!

Real world I/O for 0.5 Amp short circuit proof DC outputs costs less than €2.50 per point. You can add DeviceNet for only €79.00.

You get the picture!



You get a great Price even for a single unit purchase, saving you thousands of dollars in development costs.

Separate CPU and circuit board for HMI and PLC.

The EZTextPLC uses two independent circuits and PCBs for HMI and PLC functions eliminating the concern for PLC crash in case of a faulty Text panel. Even the power supply for both functions is separate. So even if someone punches a screwdriver through the keypad, the PLC control will continue to run.

EZ Text PLC™ Let's Compare to a Separate Operator Interface and DL06

32 Digital I/O with Operator Interface - 16 Digital In, 16 Digital Out, 24 Volt DC Power

SAVES
Panel Space & Cost By at Least 35% Over DL06

B080804SC
D0808
8x8x4 NEMA 12
Control Enclosure

EZTEXTPLC

$348

$417 with software

EZTEXTPLC System		
Price	Model	Description
$272	EZPD-220	EZText w/Built-in EZPLC (EZTEXTPLC)
$19	EZIO-8DCI	EZI/O Analog In
$19	EZIO-8DCI	EZI/O Analog In
$19	EZIO-8DCOP	EZI/O Analog Out
$19	EZIO-8DCOP	EZI/O Analog Out
Total $348		
EZTEXT PLC with Software and Cable		
$20	EZP-PGMCBL	Programming Cable for EZTEXTPLC
$49	EZ-TEXTPLC-EDIT	Programming Software for EXTEXTPLC
Total $417		

B161406SC
P1614
16x14x6 NEMA 12
Control Enclosure
for PLC and other
controls

DL06

$472.25

$695.25 with software

DL06 System		
Price	Model	Description
$199	DO-06DD2-D	DL06 (20 DC In/16 DC Out, 12/24VDC)
$182	EZ-220	EZ Text
$20	EZ-2CBL	EZ Text to DL06 Communication Cable (RS232C Cable)
$41.25	B161406SC	Min. Additional Enclosure Cost difference
$30		Min. Additional Labor Cost to Install DL06
Total $472.25		
DL06 and EZText with Software and Cable		
$30	D2-DSCBL	PC Programming Cable for DL06
$149	PC-PGM-BRICK	DirectSOFT32 for Windows PC
$28	EZ-TEXTEDIT	EZ Text Software
$16	EZTEXT-PGMCBL	EZ Text Programming Cable
Total $695.25		

EZ Text PLC™ Let's Compare to a Separate Operator Interface and MicroLogix

32 Digital I/O with Operator Interface - 16 Digital In, 16 Digital Out

SAVES
Min 35% Panel Space and Ridiculous $$$ Over MicroLogix

B080804SC
D0808
8x8x4 NEMA 12
Control Enclosure

EZTEXT PLC

$348

$417 with software

EZTEXTPLC System		
Price	Model	Description
$272	EZPD-220	EZText w/Built-in EZPLC (EZTEXTPLC)
$19	EZIO-8DCI	EZI/O Analog In
$19	EZIO-8DCI	EZI/O Analog In
$19	EZIO-8DCOP	EZI/O Analog Out
$19	EZIO-8DCOP	EZI/O Analog Out
Total $348		
EZTEXT PLC with Software and Cable		
$20	EZP-PGMCBL	Programming Cable for EZTEXTPLC
$49	EZ-TEXTPLC-EDIT	Programming Software for EXTEXTPLC
Total $417		

B161406SC
P1614
16x14x6 NEMA 12
Control Enclosure
for PLC and other
controls

MicroLogix 1200

$1425

$2411 with software

MicroLogix 1200 Requirements		
Price	Model	Description
$649	1762-L40BXB	MicroLogix 1200 PLC with 24 DC In and 8 FET (24DC) Out
$144	1762-OB8	8 Point 24VDC output
$52	1762-RTC	Real Time Clock
$70	2711-NC21	Panel to PLC Communication Cable
$510	2711-K3A5L1	PanelView 300 Monochrome Terminals RS-232 (DH-485) Communication Port
Total $1425		
MicroLogix and PanelView with Software and Cable		
$514	9324-RL0100ENE	MicroLogix Programming Software (Starter Kit)
$305	2711-ND3	Programming Software for PanelView
$67	1756-CP3	MicroLogix Programming Cable
$100	2711-NC13	Panelview Programming cable
Total $2411		

We didn't even include the cost of larger enclosure and installation for this comparison!

It is Very EZ to Program an EZTextPLC

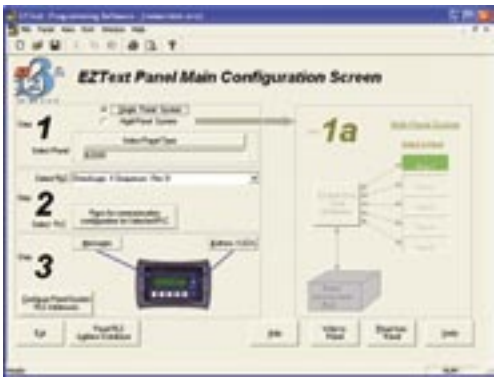
Configuration Screen

The EZText Enhanced programming software (EZ-TEXTEDIT) is a Windows-based program. The EZ-to-use screens and pull-down menus provide all tools you will need to select the panel type, configure the PLC communications, create text messages, etc. The EZText panels use simple addressing and bit assignments.
Competitor text panels require extensive programming and associated ladder logic to make the pushbuttons and LEDs operable.

Select panel type from the selection screen →

Configure PLC communications →

Configure messages, pushbuttons, LEDs, etc. →



Configuring Pushbuttons and Leds

The configuration screen contains all of the information needed to configure the pushbuttons and their associated LEDs. You can configure the pushbuttons in three different ways: alternate, momentary, or alternate with PLC release option. The associated LEDs, which can also operate totally independent of the pushbutton action, can be triggered three ways: by the associated pushbutton, by the PLC, or they can be made to flash by the pushbuttons. This screen also allows the user to enter the associated PLC address. Once the address assignment has been selected, all of the pushbutton and LED fields will be populated with the associated bit assignments.

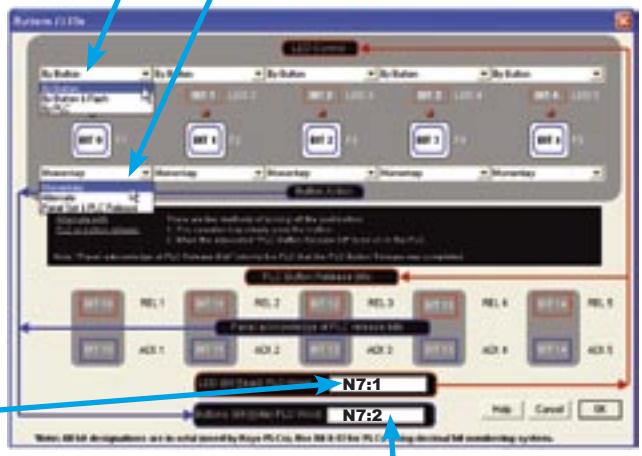
LED status PLC register

0	0	0	1	1	1	1	0	N7:1

User-defined pushbutton LED status is directly mapped from bits in a single user-defined PLC memory word.

Configure LED trigger

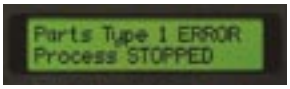
Configure Pushbutton action



Pushbutton status PLC register

1	0	0	1	0	0	0	0	N7:2

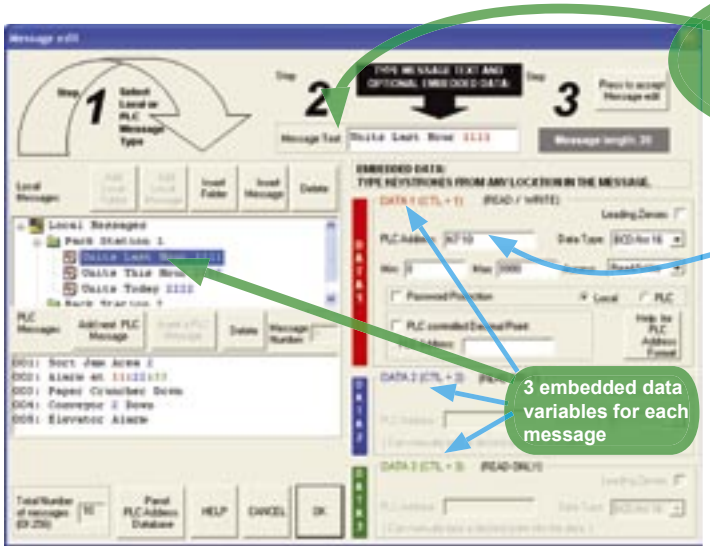
User-defined pushbutton keys are automatically written to bits in a single user-defined PLC memory word.



Stores Up To 256 Messages Triggered by the PLC or Locally

User Programmable Messages

There are two message types which can be displayed: local and PLC. Local messages are displayed on the screen unless the PLC triggers a PLC message, which overrides a local message.. When a PLC message is triggered, the PLC Message LED will also be illuminated. The PLC message LED will remain on until the user acknowledges the situation by pressing [esc] on the panel.


Each text message can contain up to three embedded variables, one of which can be entered by an operator from the keypad
3 embedded data variables for each message

Programmable Message PLC Register

0	0	0	0	0	1	0	0	N7:4

"PLC type" messages are controlled by a single word memory location of a PLC

Layered messages provide more organization and detail.

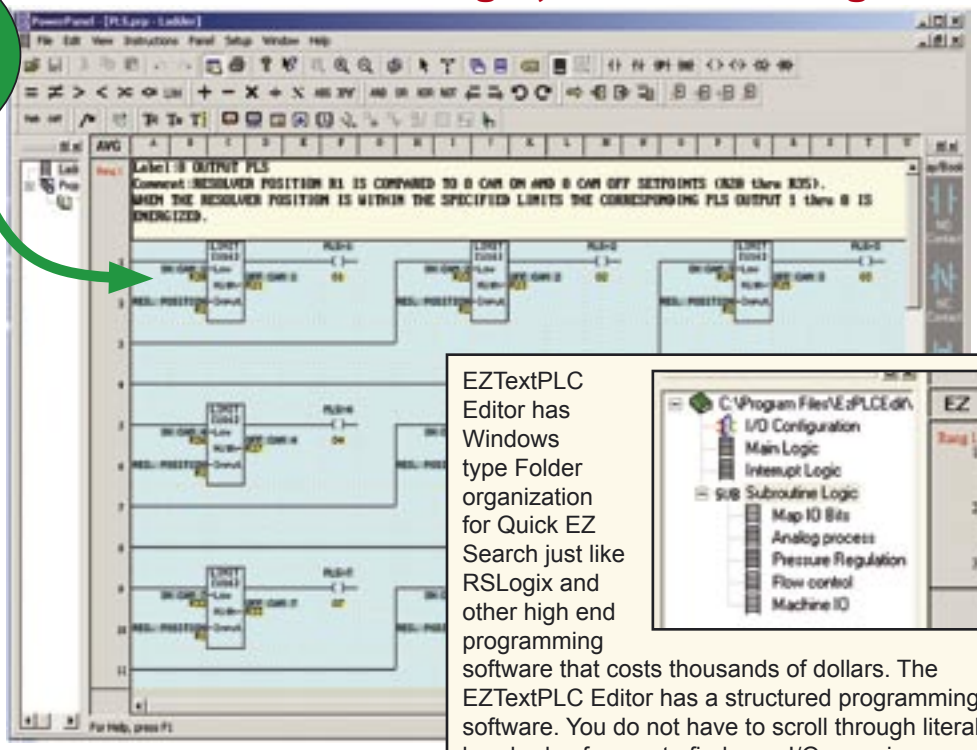
These messages are triggered by the PLC and will trigger the PLC Message LED on the front of the EZText panels.

+49 (0) 2161 464470

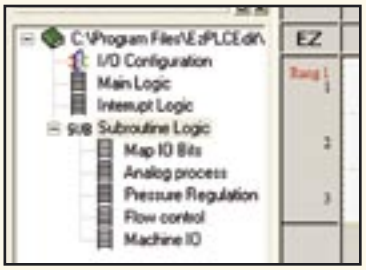
It is Very EZ to Program an EZTextPLC

Free Flow Ladder Logic, Patent Pending

Just One Rung!



The concept of this patent pending Free Flow Ladder Logic is to create less restricted rungs of logic. This saves the user rung space and valuable scan time. On the right you will see an example of Free Flow Ladder-Logic. As you can see the Free Flow logic allows logic to be placed and connected anywhere in the rung rather than creating a new rung. This allows the user to spend more time on other parts of the machine development and let the CPU do more of the work of solving the logic.



EZTextPLC Editor has Windows type Folder organization for Quick EZ Search just like RSLogix and other high end programming software that costs thousands of dollars. The EZTextPLC Editor has a structured programming software. You do not have to scroll through literally hundreds of rungs to find your I/O mapping, subroutines or interrupts.

Advanced Instructions:

32-bit floating point calculations

The EZPLC supports 32-bit floating point mathematical and logical operations. The data options allow you to use signed or unsigned integer data as well as floating point data type.

Data Conversion

This instruction is meant to make ladder programming EZ and flexible. You can copy the data in one register, convert its data type and save it into another register without altering the 'source' register. The data can be converted from binary to BCD or grey code or vice versa.

Move Block

This instruction adds convenience to handling data inside the ladder program. You can move blocks of memory. All you need to specify is starting point of your source address, number of data elements to move and starting point of destination memory address. Along with Move Block, Fill Block and Move table of Constants also make life of a programmer much simpler.

String

These instructions operate on ASCII string data type. You can Move string data between registers, base rung power flow upon string comparison and compute string length to store the length value in a different register.

Subroutines

Capability to use subroutines is a huge plus in EZPLC programming. For large and complex programs, user can define many subroutines and use them in the main ladder program. These subroutines can be called from the main logic. Return instruction allows user to return to the main logic at any step.

Drum Sequencer

This is a time or event based sequencer that updates up to 16 outputs per step, up to 16 steps. Time base of each count is user defined and each step has its own counter. User can define an event to trigger the count. The rung power flow is allowed after completion of all the steps in a drum.

Marquee Instructions

Now you don't have to spend days to send signals to your marquee. Send to marquee instruction allows you to communicate to the marquee via ASCII strings. A unique message number is assigned to each message in the message database. This instruction looks up the message number, corresponding to the intended message to be displayed and sends it to the marquee. User can define actions if a message number cannot be found in the database.

Interrupt Routine

This is how your EZPLC would process external events that require "instantaneous" response. User can write a separate interrupt logic routine. At the instance of an external event, the PLC would interrupt the main logic, execute this interrupt logic on a priority, and scan corresponding I/O. It would return to the main logic automatically after processing the interrupt routine.

ASCII Instructions

User can send/receive ASCII string data to/from any register in PLC to a predefined serial port. User can also define the Control address and character count of the source register. Similarly, user can send ASCII string data to a Marquee directly from the main logic.

Bit Move Instructions

Bit move instructions allow the user to move word data from a register type memory address to a bit in a discrete memory location and backward.

For detailed information, see the PLC Programming Instructions on page 8-23 in the EZPLC section.

This Almost FREE Automation Controller also has Great Connectivity to DeviceNet, Profibus and Ethernet TCP/IP

All EZTextPLC models can be ordered with Ethernet, DeviceNet and Profibus connectivity through separate part numbers.

Ethernet TCP/IP

€99

All EZTextPLC models are available with built-in high speed Ethernet TCP/IP communication interface in addition to RS232 and RS422/485 communication ports. This interface allows EZTextPLC to reside on a 10 Mbps TCP/IP network (10Base T Ethernet) via an RJ45 port. Use Ethernet models for easy Ethernet programming with 100 meters being the maximum distance between two nodes. For distances greater then 100 meters repeaters can be used to extend the distance between any two nodes.

DeviceNet Slave Module

€79

EZTextPLC models when ordered with built-in DeviceNet Slave communication interface provide DeviceNet connectivity in addition to RS232 and RS422/485 communication ports. DeviceNet communication interface for EZTextPLC provides a digital, multi-drop network that can be used for communicating with DeviceNet enabled controllers and I/O devices. On DeviceNet network every device acts as a node and allows multiple communication hierarchies and prioritization of messages. EZTextPLC with DeviceNet communication interface can be configured in a master-slave control architecture as a slave node and allows peer-peer communication. DeviceNet control system provides a single point of connection both for configuration and support for I/O as well as explicit messaging.

Profibus

€129

All EZTextPLC models are available with built-in Profibus Slave communication interface in addition to RS232 and RS422/485 communication ports. This gives EZTextPLC the ability to link with a Profibus Master Controller. Profibus is a vendor independent open field bus protocol standard in manufacturing automation and process control. It reduces hard-wiring costs and provides specifications for information exchanged between nodes of a Profibus network. This communication interface provides the ability to transfer data between a Profibus master and EZTextPLC.The Profibus communication interface also has an auto-detect feature for the baud rate of the Profibus network.

Built-in RS422/485 Port to Communicate to External Devices such as Drives, Message Displays or Temperature Controllers

Barcode Printer

EZTextPLC

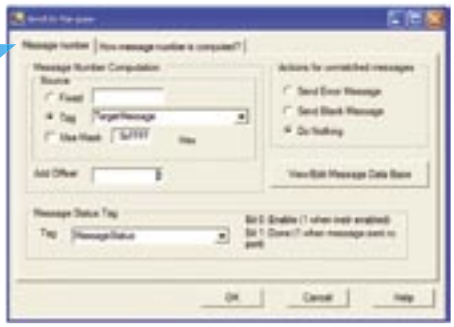
AC Drive

EZMarquee

RS485 Cable

1. Use EZTextPLC's "Send to Marquee" instruction to initiate communication with EZMarquee.

2. Configure your message's source tag and status tag.



3. Control your message attributes without ever having to worry about ASCII format

Type in your message along with it's attributes like character size, color, and effects like scrolling or blinking. Preview the message to edit any changes.

EZ Text PLC™ Selection Guide and Specifications

EZText PLC Model Specifications					
EZTextPLC	EZ-220-PLC €272	EZ-420-PLC €292	EZ-220P-PLC €342	EZ-220V-PLC €372	EZ-220PV-PLC €442
EZTextPLC w/ Ethernet	EZ-220-PLC-E €371	EZ-420-PLC-E €391	EZ-220P-PLC-E €441	EZ-220V-PLC-E €471	EZ-220PV-PLC-E €541
EZTextPLC w/ DeviceNet	EZ-220-PLC-D €351	EZ-420-PLC-D €371	EZ-220P-PLC-D €421	EZ-220V-PLC-D €451	EZ-220PV-PLC-D €521
EZTextPLC w/ Profibus	EZ-220-PLC-P €401	EZ-420-PLC-P €421	EZ-220P-PLC-P €471	EZ-220V-PLC-P €501	EZ-220PV-PLC-P €571
	Starting at €272	**Starting at €292**	**Starting at €342**	**Starting at €372**	**Starting at €442**
Specifications	220 EZTextPLC	420 EZTextPLC	220P EZTextPLC	220V EZTextPLC	220PV EZTextPLC
Display Type	2 Line x 20 Char LCD (5.55mm)	4 Line x 20 Char LCD (4.75mm)	2 Line x 20 Char LCD with Numeric Keypad (5.55mm)	2 Line x 20 Char Vacuum Fluorescent Display (5.55mm)	2 Line x 20 Char Vacuum Fluorescent Display with Numeric Keypad (5.55mm)
Keypad Overlay	Five User Defined Pushbuttons and Four Control Pushbuttons		Numeric Keypad, five user defined pushbuttons and four control buttons	Five User Defined Pushbuttons and Four Control Pushbuttons	Numeric Keypad, five user defined pushbuttons and four control buttons
Total Number of HMI Messages	256				
LED/LCD Life	100,000 Hours				
I/O Capacity	4 Slot Base (32I/O Max)		6 Slot Base (48I/O Max)	4 Slot Base (32I/O Max)	6 Slot Base (48I/O Max)
Power Consumption	14 Watts @ 24VDC	14 Watts @ 24VDC	16.5 Watts @ 24VDC	17 Watts @ 24VDC	19.5 Watts @ 24VDC
Processors	32 Bit, 40 MHz RISC Processor (PLC), 8 Bit Processor (HMI)				
Total PLC Memory	64 KB (Ladder)				
# of PLC Registers	8192 16Bit				
PLC Typical Scan Time	3ms (1K Boolean)				
Real Time Clock/ Calendar	Built-in				
Built-In Battery Backup	Yes, Lithium coin cell battery with 5 year life expectancy, with a low battery indicator				
PLC LED Indicators	Input Power, CPU Status (Run, Program & Run/Program) Low Battery, Program PLC, Program Panel and Run LED indicators				
I/O Supported	EZIO Snap-in modules with status LEDs and Removable Terminal Block DC / AC / Analog / Relay / Thermocouple / High Speed Counter				
Electrical Noise	Nema ICS 2-230 Showering arc; ANSI C37.90a SWC; Level C Chattering Relay Test				
Withstand Voltage	1000VDC (1 minute) between power supply input terminal and protective ground)				
Insulation Resistance	Over 20M Ohm between power supply input and terminal and protective ground				
Enclosure	Nema 4, 4x (indoor)				
Operating Temperature	0C to 45C				
Storage Temperature	-20C to 60C				
Vibration	5 to 55Hz 2G's for 2 hours in X,Y,and Z axis				
Shock	10G for under 12ms in the X,Y, and Z axis				
Humidity	10-95% Non-Condensing				
Protocols Supported	ASCII In/Out; EZ Protocol, Ethernet, DeviceNet Slave, and Profibus Slave				
Built-In Serial Communication Ports	Port 1: RS232 (Programming and HMI Port Only) Port 2: RS422 (1.2K, 2.4K, 4.8K, 9.6K, 19.2K, and 38.4K Baud Rates supported)				
Agency Approval	UL, CUL, CE (pending)				
External Dimensions	7.418" x 5" x 2.587" (188.418 x 127 x 65.711mm)	7.418" x 5" x 2.587" (188.418 x 127 x 65.711mm)	10.018" x 5" x 2.587" (254.46 x 127 x 65.71mm)	7.418" x 5" x 2.587" (188.418 x 127 x 65.711mm)	10.018" x 5" x 2.587" (254.46 x 127 x 65.71mm)
Weight	1.3 lbs	1.5 lbs	1.7 lbs	1.5 lbs	1.9 lbs

+49 (0) 2161 464470

Configure Your EZTEXTPLC
From the most Flexible EZ I/O, Select the Modules Needed for your Applications
23 Different Mix-n-Match Plug-in I/O Modules

			Page
4 Thermocouple Input	EZIO-4THI	€139	9-28
High Speed Counter, 1 input/4 output	EZIO-4HSCM1	€99	9-29
High Speed Counter, 2 input/4 output	EZIO-4HSCM2	€99	9-29
8 pt 24V DC In	EZIO-8DCI	€19	9-8
8 pt 24V DC Out Source	EZIO-8DCOP	€19	9-9
8 pt 24V DC Out Sink	EZIO-8DCON	€19	9-10
8 pt 24V DC In Fast	EZIO-8HSDCI	€24	9-11
4 pt 24V DC In, 4 pt 24V DC Out Sink	EZIO-4DCI4DCON	€19	9-13
4 pt 24V DC In Standard, 4 pt 24V DC In Fast Interrupt	EZIO-4DCI4DCIF	€29	9-12
4 pt 24V DC In, 4 pt 24V DC Out Source	EZIO-4DCI4DCOP	€19	9-14
8 pt 110 AC In	EZIO-8ACI	€29	9-15
8 pt 110 AC Out	EZIO-8ACO	€29	9-16
4 pt 110 AC In, 4 pt 110 AC Out	EZIO-4ACI4ACO	€29	9-17
4 pt 24V DC Out Source, 4 pt 110 AC Out	EZIO-4DCOP4ACO	€29	9-18
4 pt 110 AC In, 4 DC Out Source	EZIO-4ACI4DCOP	€29	9-19
4 pt 24V DC In, 4 110 AC Out	EZIO-4DCI4ACO	€29	9-20
8 Analog In Voltage	EZIO-8ANIV	€99	9-24
8 Analog In Current	EZIO-8ANIC	€99	9-25
4 Analog In, 4 Analog Out Voltage	EZIO-4ANI4ANOV	€99	9-26
4 Analog In, 4 Analog Out Current	EZIO-4ANI4ANOC	€99	9-27
4 pt Relay Out	EZIO-4IORLO	€34	9-21
4 pt 110 AC In, 4 Relay Out	EZIO-4ACI4RLO	€39	9-22
4 pt 24V DC In Source, 4 Relay Out	EZIO-4DCOP4RLO	€39	9-23

EZ Text PLC™

Product Overview

Introduction

EZTextPLC is the most powerful combination of a PLC and HMI in an ultra compact housing. It utilizes EZPLC's base and EZText Enhanced operator interface in one compact package and thus has all the features present in EZText Enhanced along with EZPLC and I/O modules.

Overview

EZText PLC can be used to substitute small control systems that require a Text type display and a PLC with a maximum of 48 I/O. EZText PLC is the most compact HMI/PLC combination in the industry and eliminates the need to buy a PLC and Operator Interface separately. Take advantage of EZTextPLC's compact design to reduce electrical panel space by as much as 35%.

Getting Started

All you need are the following:
- EZTextPLC
- 24 VDC power supply (min. 1.5A, switching)
- Programming cable
- PC
- EZTextPLC Programming Software

Features:

- Choice of EZText operator Interfaces
  Up to 32 I/O PLC with EZ-220V/EZ-220/EZ-420
  Up to 48 I/O PLC with EZ-220PV/EZ-220P
- 2 or 4 line 20 character LCD display
- 2 line 20 character VFD display option
- 5 user defined pushbuttons and LEDs
- Built-in Menu system
- Scroll Data Entry or Numeric Keypad
- 256 messages with 3 embedded variables per message
- Heavy duty mounting gasket
- PLC message indicator LED
- Extremely Flexible 8 point I/O Modules
- 64K PLC Program memory
- Extremely fast scan time: 3ms for 1k
- Power Instruction Set
- Supports ASCII In/Out
- Built in real time clock/calendar
- 100 KHz counter module
- Interrupt Input modules (optional)
- CPU status indicator LED
- Low battery indicator LED
- Three PLC states: Run, Program, Run/Program with LED indicators
- 8192 variables, 8192 registers
- Single programming port for both PLC and Panel
- Single EZTEXT PLC editor for only €49 with common tag database

Easy Installation

Installing the panel is as EZ as 1-2-3. Just follow these instructions:

1. Mounting

EZTextPLC Panel is a front mount unit and requires a panel cutout. Once you have a panel cutout made you can secure the EZtext PLC in place with screws or din clips. The rubber gasket will provide the seal between the panel and EZText PLC for a Nema 4,4x front. After mounting EZText PLC, insert your EZIO in the current slots and you are ready to wire and program it.

2. Wiring and Connections

After mounting all you have to do is to wire your EZTextPLC I/O modules to your desired products.

3. Program your EZTextPLC

Use programming cable to connect to EZText PLC from a PC and you are ready to program your unit, both for HMI and PLC.

Support

You can also find up to date information on all the products, any new features, tech support and much more on our website www.ezautomation.eu.com. If you have any questions for which you can't find an answer, give us a call at +49 (0) 2161 464470 and we will be glad to assist you.

Delivery Status: STK

Part Number	Description	Price
EZIO-M	Hardware User Manual for EZI/O Modules	€25
EZPLC-CM	Hardware User Manual for DeviceNet, Profibus and Ethernet options	€25
EZPLC-BAT	EZPLC Replacement Battery	€20
EZP-PGMCBL	Programming Cable	€20
EZIO-DUMMY	Dummy Module for Open Slots	€5
EZIO-TERM11	11 Pin Removable 3.5mm Phoenix Terminal Block	€5
EZPLC-TERM5	5 Pin Removable 3.5mm Phoenix Terminal Block	€4
EZ-DNTERM5	DeviceNet 5 Pin Field Terminal Block	€8
EZ-TEXT-S-GSK	Standard replacement gasket (small) for EZ-220V-PLC, EZ-220-PLC, EZ-420-PLC	€8
EZ-TEXT-L-GSK	Standard replacement gasket (large) for EZ220PV-PLC, EZ-220P-PLC	€9
EZ-BRK-2	DIN clips (pk. of 4)	€34
EZ-TEXT-STUDS	Mounting studs (pk. of 4)	€8
EZ-COMCON3	15-pin male D-sub connector with terminal blocks, for connecting RS422 network cable from EZTouch or EZText panels	€19
EZ-COMCON4	9-pin female D-sub connector with terminal blocks	€19
EZ-TEXT-CORE	EZText replacement ferrite cores	€15
EZ-TEXT-PWRTERM	EZText replacement power terminal strip	€12
EZ-TEXTPLC-M	Hardware User Manual For All EZTextPLCs	€35
EZ-TEXTPLC-EDIT	Windows based Programming software for all EZ-TextPLCs. Requires Windows 95/98/NT or 2000. Manual and CD-ROM included	€49
EZTEXT-PGMCBL	Programming cable for setup and programming for all EZTextPLCs. 2 m (6.56ft) RS232 cable with 15-pin D-shell male connector on one end and 9-pin D-shell female connector at the other end.	€16

Switch Settings, Status Indicators and Connections

Operation Set up

SW3	SW4	Tri-Color LED	Operation
1	0	Green	Run
0	1	Red	Program
1	1	Amber	Run/Program
0	0	Off	No Operation

RS232 Programming Port and Communication Selector

SW1	SW2	PLC LED	Panel LED	RUN LED	Connection
1	0	On	Off	Off	RS232 port to PLC
0	1	Off	On	Off	RS232 port to Panel
1	1	On	On	Off	No Connection
0	0	Off	Off	On	PLC Connected to Text Panel; RS232 port not connected

Optional Ethernet connectivity on Enhanced model

Port for I/O Module

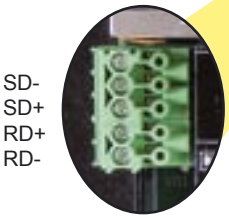
RS232 Programming Port

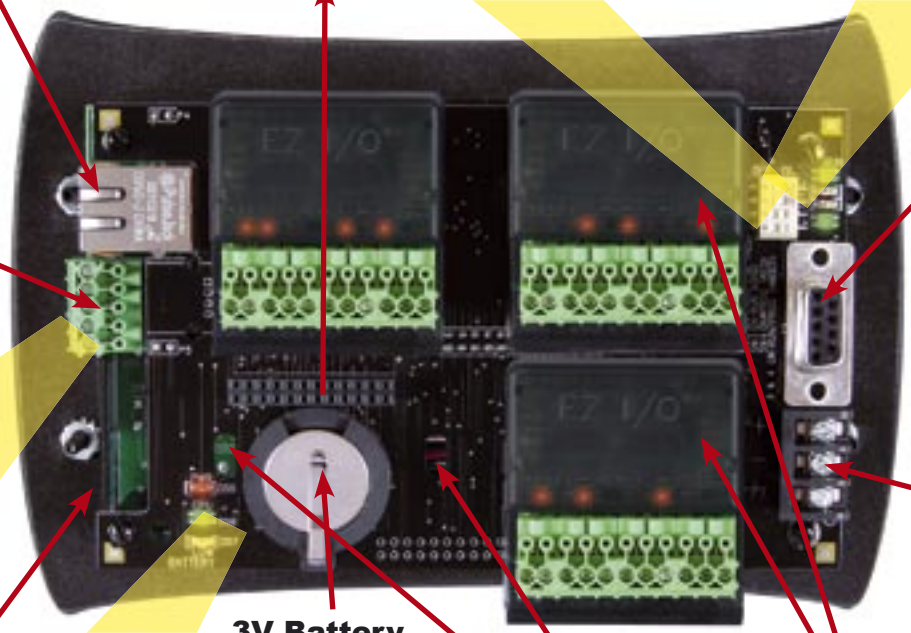
Used to program PLC or TextPanel

Pin #	Function
2	TXD
3	RXD
5	Logic GND
Rest	NC

RS422/485 ASCII Port

Used to send or receive ASCII instructions to other devices

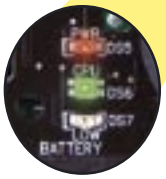




3V Battery Included

24VDC Power Input

Block style connector used to connect an external 24VDC supply



Power LED

CPU LED

Low Battery LED

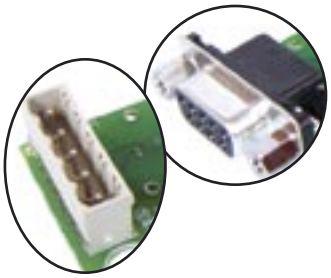
Insert I/O Modules

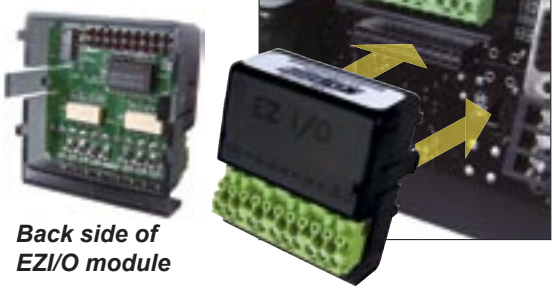
Snapped into the two slots

Remove I/O Modules

Removed from the slots by pressing the two clips on the side of the module.

DeviceNet, Profibus Optional Port

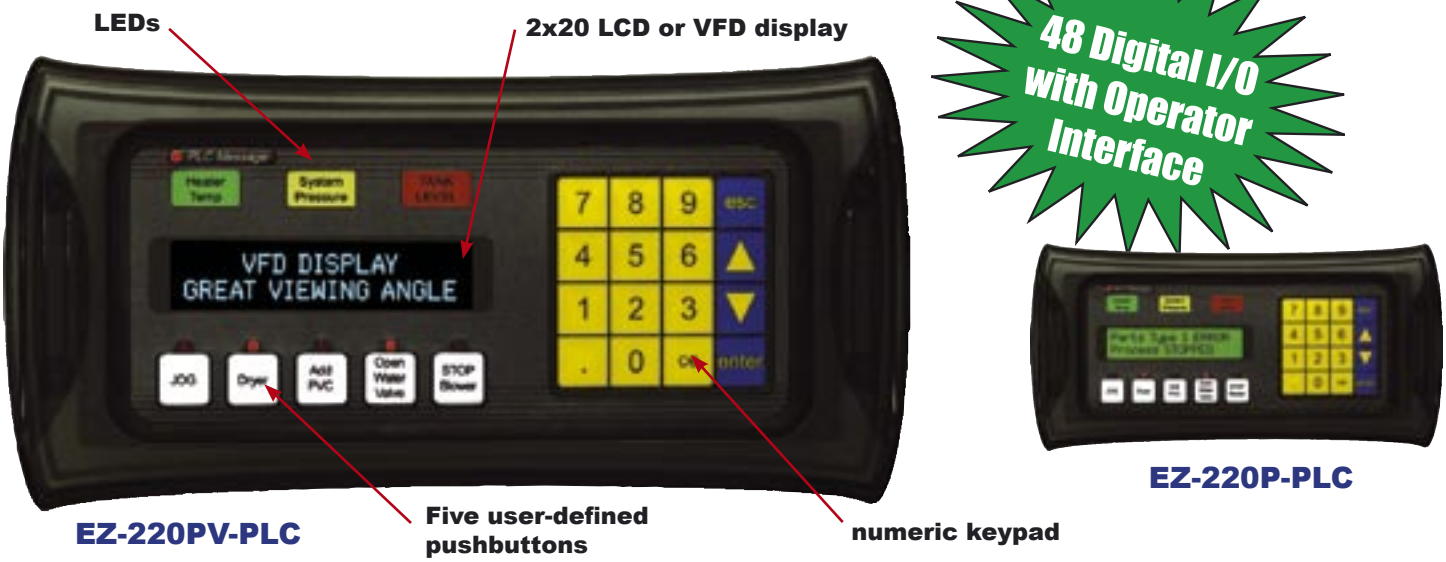




Back side of EZI/O module

Caution: Do not use AC output module in the bottom left slot due to height of the battery

EZ-220PV-PLC/220P-PLC Front End



Overview:

The EZ-220P-PLC and EZ-220PV-PLC come with a two line LCD or Vacuum Fluorescent display, a numeric keypad, control pushbuttons, pushbuttons with LEDs, and three LED annunciators. The displays contain two lines by 20, 5.5mm characters (2x20). The new EZ-220V comes with a bright two line Vacuum Fluorescent display with 5.5mm characters with a wider viewing angle of ± 60 degrees. Push buttons are used to control task or initiate an event in the PLC and in this way you can also monitor the bit condition in the ladder logic program. You can also define and program the five pushbuttons using the EZTextPLC software. There also three annunciator lamps that can be used for various status of the machine or alarms.

Front Panel Descriptions:

LCD and VFD Display

There are two kinds of messages that can be viewed on these models: local Text panel and local PLC. When the machine is running in the normal mode, the local Text panel messages are displayed. The messages are viewed in tree structure format. A message beginning with "+" indicates a folder and when you select it by pressing enter, all the associated messages can be viewed and the "-"appears at the beginning of message.

The local PLC message is displayed whenever PLC triggers a message, The PLC message light will illuminate and the previous message on the display will be overwritten by the PLC message. The display will return back to the previous message after the PLC message is acknowledged.

There are three types of messages (Static, Dynamic or interactive) that may be configured in the EZTextPLC Editor and you can store up to 256 messages.

Annunciator

Annunciators are high intensity LEDs that will illuminate to show the state set in the PLC. The LED colors (red, green and amber) are based on the bits in the associated PLC address string. You can also add Labels to LEDS using the provided templates

User-Defined Pushbuttons

We provide you with the blank labeled, user defined five pushbuttons. This provide you with the flexibility in customization so that you can custom label the pushbuttons and configure them as alternate, momentary, or alternate with PLC release.

Pushbuttons with LEDs

Above each pushbutton there is an associated LED. These buttons can be programmed to show various status or they can be programmed to be controlled by discrete bits in the PLC program. When push buttons are pressed, the three different control types (alternate, momentary, or alternate with PLC release) will determine the LED response. You can also make the LED to flash.

Numeric Keypad

EZTextPLC's numeric keypad has 16 pushbuttons for scrolling data entry, or interactive messages. The numeric keypad can be used to update a value in the PLC. The value will be updated in the PLC only after the enter button has been pressed. The esc button will abort or cancel the changes without changing the PLC value.

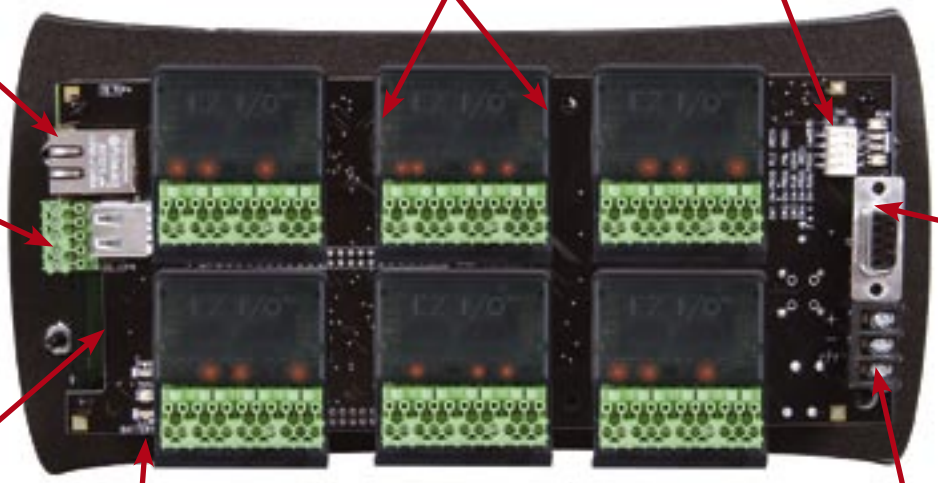
Part Number	Description	Price
EZ-220P-PLC	DC Power – 48 I/O Base	€342
EZ-220P-PLC-E	DC Power – 48 I/O Ethernet Base	€441
EZ-220P-PLC-D	DC Power – 48 I/O DeviceNet Base	€421
EZ-220P-PLC-P	DC Power – 48 I/O Profibus Base	€471

EZ-220PV-PLC/220P-PLC Back End

Optional Ethernet connectivity

Snap-in I/O modules

Dip Switches and LEDs
For communication and operation setting



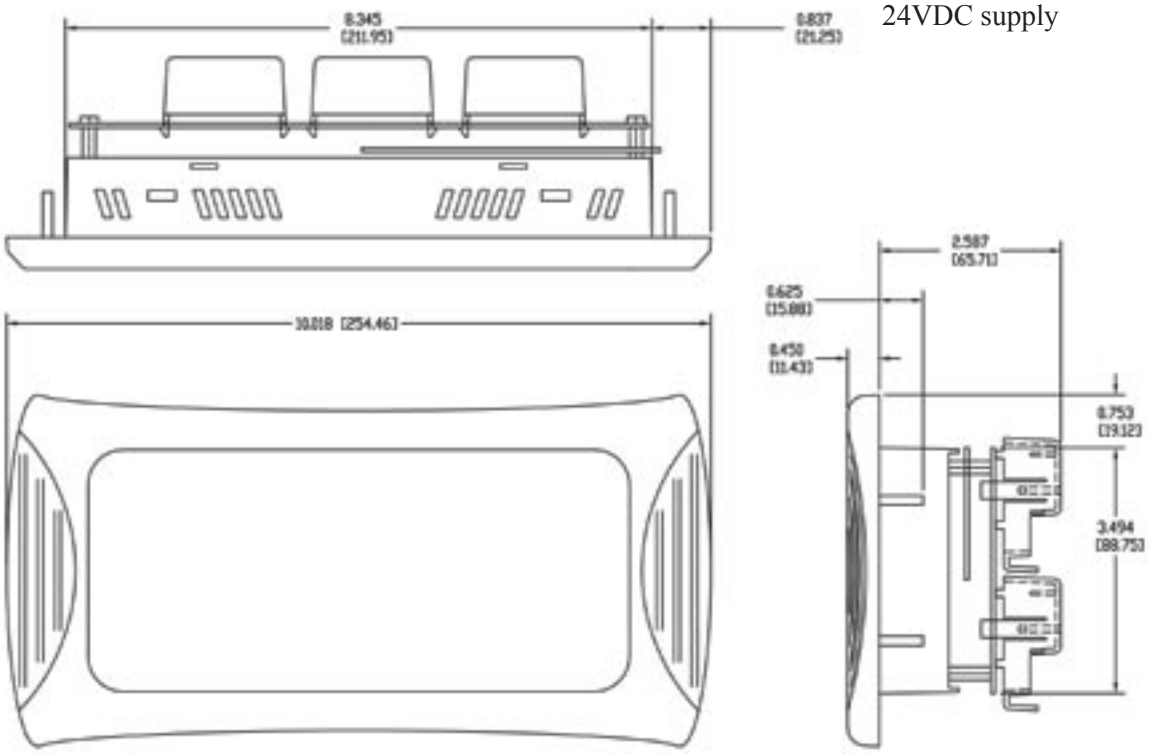
RS422/485 ASCII Port
Used to send or receive ASCII instructions to other devices

RS232 Programming Port
Used to program PLC or TextPanel

DeviceNet, Profibus Optional Port

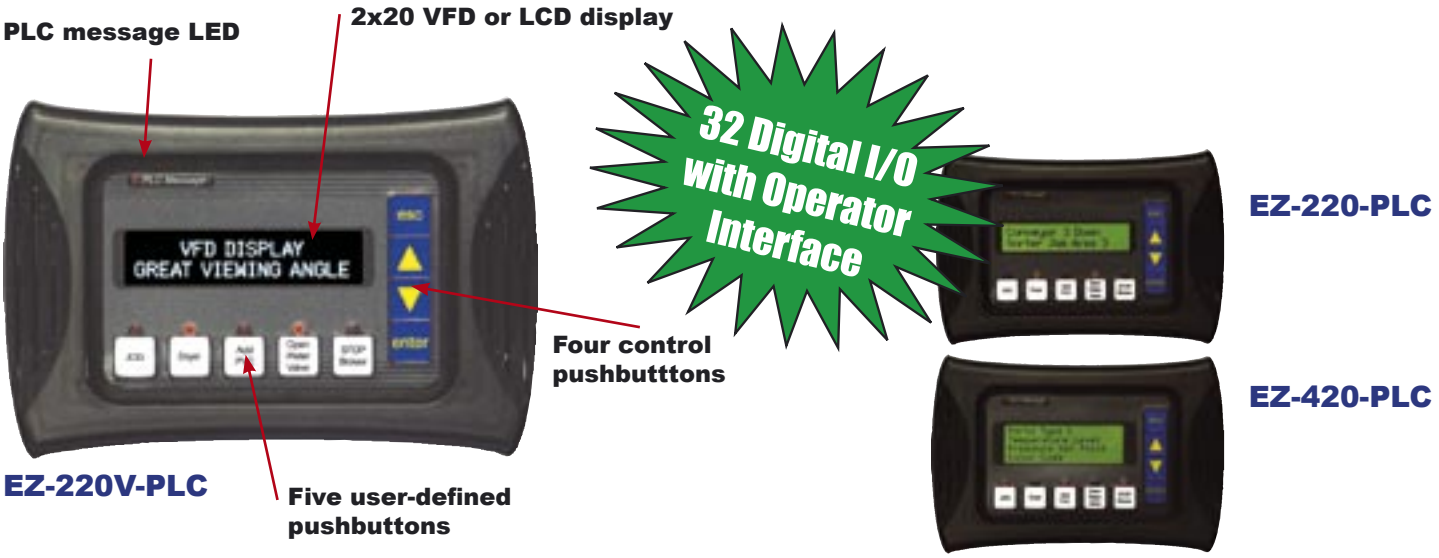
CPU and Battery Status Indicators

24VDC Power Input
Block style connector used to connect an external 24VDC supply



Part Number	Description	Price
EZ-220PV-PLC	DC Power – 48 I/O Base	€442
EZ-220PV-PLC-E	DC Power – 48 I/O Enhanced Ethernet Base	€541
EZ-220PV-PLC-D	DC Power – 48 I/O Enhanced Ethernet and DeviceNet	€521
EZ-220PV-PLC-P	DC Power – 48 I/O Enhanced Ethernet and Profibus	€571

EZ-220V-PLC/220-PLC/420-PLC Front End



Overview:

The EZ-220-PLC (5.5mm character) comes with a two line 2x20 LCD display, pushbuttons with LEDs, and control pushbuttons. The EZ-420-PLC (4.75mm character) comes with a four line LCD display, and the new EZ-220V-PLC comes with a bright two line Vacuum Fluorescent display with 5.5mm characters with a wider viewing angle of ± 60 degrees. Pushbuttons are used to control tasks or initiate an event in the PLC and in this way you can also monitor the bit condition in the ladder logic program. There are five function pushbuttons with LEDs and four control pushbuttons.

Front Panel Descriptions:

LCD or VFD display

There are two kinds of messages that can be viewed on the screen of these models: local Text panel and local PLC. When the machine is running in the normal mode, the local Text panel messages are displayed. The local messages are viewed in tree structure format. A message beginning with "+" indicates a folder and when you select it by pressing enter, all the associated messages can be viewed.

The local PLC message is displayed whenever PLC triggers a message, the PLC message light will illuminate and the previous message on the display will be overwritten by the PLC message. The display will return back to the previous message after the PLC message is acknowledged.

There are three types of messages (Static, Dynamic or interactive) that may be configured in the EZTextPLC Editor and you can store up to 256 messages.

Control Pushbuttons

To scroll through the messages you have the convenience of four control pushbuttons. Not only can you view the message, but if the message has any embedded data that can be changed, the buttons can be used to adjust the values of this as well. The value will be updated in the PLC only after the enter button has been pressed. The ESC button will abort or cancel the changes without changing the PLC value.

User-Defined Pushbuttons

We provide you with five blank labeled, user defined pushbuttons. This provides you with the flexibility to custom label the pushbuttons and configure them as alternate, momentary, or alternate with PLC release.

Pushbuttons with LEDs

Above each pushbutton there is an associated LED. These buttons can be programmed to show various states or they can be programmed to be controlled by discrete bits in the PLC program. When push buttons are pressed, the three different control types (alternate, momentary, or alternate with PLC release) will determine the LED response. You can also program the LED to flash.

PLC Message LED

The panel has a PLC message LED. The LED will illuminate to indicate that the PLC has triggered a message that will be displayed in the LCD window. The LED will turn OFF when the ESC pushbutton is pressed.

Part Number	Description	Price
EZ-220V-PLC	DC Power – 32 I/O Base	€372
EZ-220V-PLC-E	DC Power – 32 I/O Enhanced Ethernet Base	€471
EZ-220V-PLC-D	DC Power – 32 I/O Enhanced Ethernet and DeviceNet	€451
EZ-220V-PLC-P	DC Power – 32 I/O Enhanced Ethernet and Profibus	€501

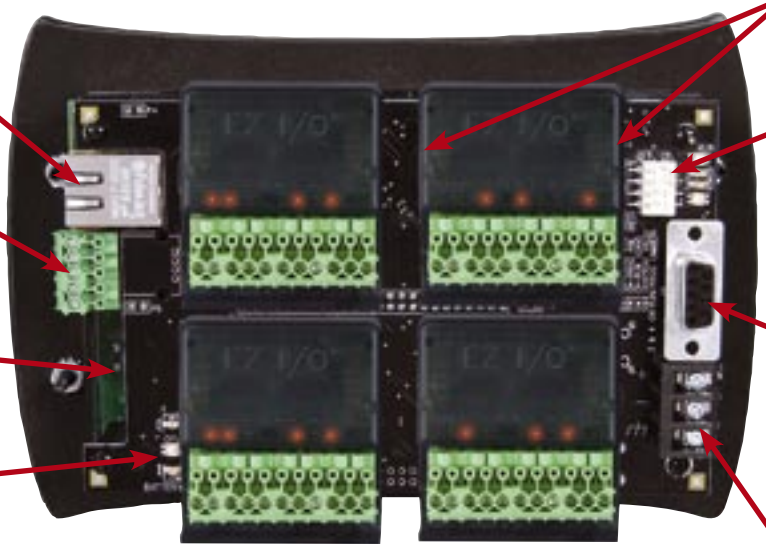
EZ-220V-PLC/220-PLC/420-PLC Back End

Optional Ethernet connectivity

RS422/485 ASCII Port
Used to send ASCII instructions to other devices

DeviceNet, Profibus Optional Port

CPU and Battery Status Indicators

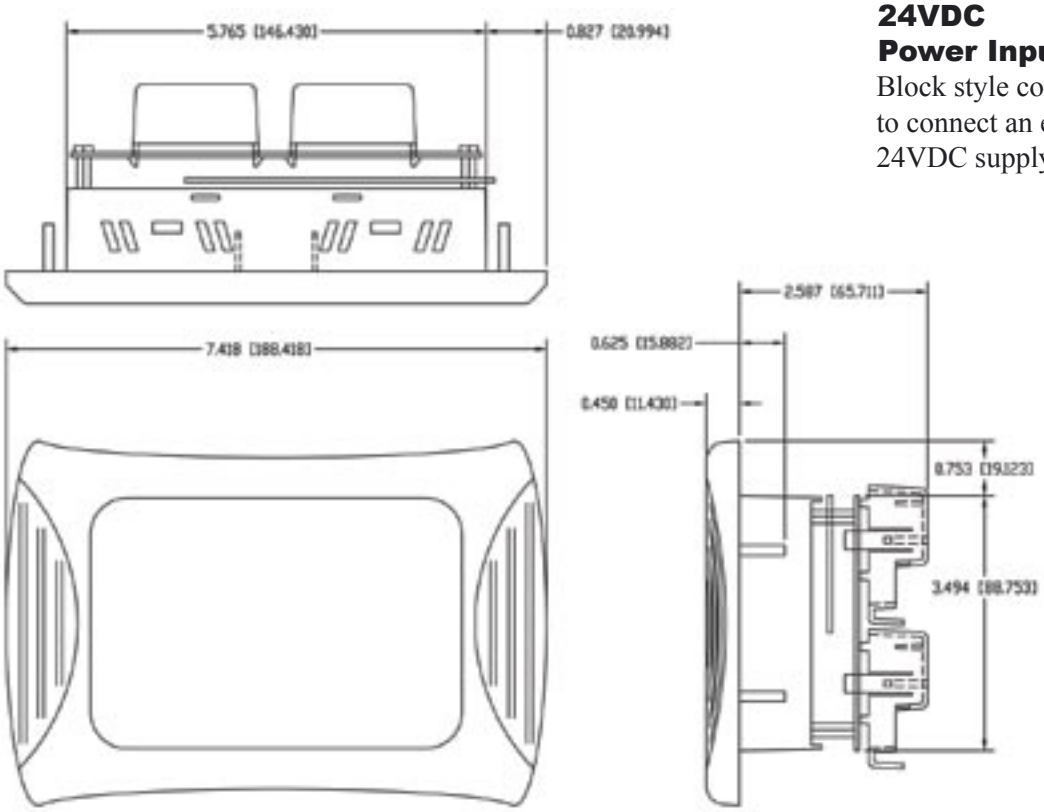


Snap-in I/O modules

Dip Switches and LEDs
For communication and operation setting

RS232 Programming Port
Used to program PLC or TextPanel

24VDC Power Input
Block style connector used to connect an external 24VDC supply

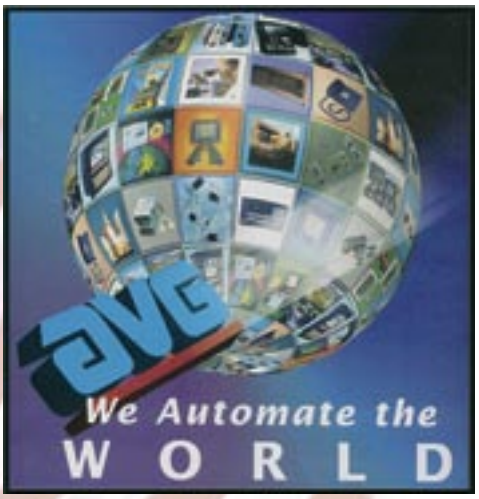


Part Number	Description	Price
EZ-220-PLC	DC Power – 32 I/O Base	€272
EZ-220-PLC-E	DC Power – 32 I/O Enhanced Ethernet Base	€371
EZ-220-PLC-D	DC Power – 32 I/O Enhanced Ethernet and DeviceNet	€351
EZ-220-PLC-P	DC Power – 32 I/O Enhanced Ethernet and Profibus	€401
EZ-420-PLC	DC Power – 32 I/O Base	€292
EZ-420-PLC-E	DC Power – 32 I/O Enhanced Ethernet Base	€391
EZ-420-PLC-D	DC Power – 32 I/O Enhanced Ethernet and DeviceNet	€371
EZ-420-PLC-P	DC Power – 32 I/O Enhanced Ethernet and Profibus	€421

Our Products are Designed and Built in the USA

A Brief Overview of AVG

AVG, an American Group of companies, is vertically integrated to design and manufacture state of the art electronic products, cost effectively, for the best Return On Investment for our customers.



Significant Highlights & Core Competencies...

- Established in 1975, AVG has introduced more than 500 innovative new products.
- Extensive hardware, firmware, & software design capability, in Illinois & Iowa.
- Hold 20+ Patents & 15 New Pending
- Has an installed base of over €1 Billion in fortune 500 companies such as Ford, GM, P&G, Abbot, Miller, & IBM.
- PCB fabrication.
- 3 EMS Plants for Complete Turn Key Assembly & Box Build.
- Thick Film Hybrids.
- One of the largest semiconductor FABs.
- Known for "Uticor Tough," High Reliability, HALT-HASSed Products, designed to operate in harsh industrial environments.
- In the fore-front of High Technology such as BGA and controlled impedance high density board products.

Almost all products in this catalog have been manufactured with pride in the USA by AVG/EZAutomation

American Pride in Manufacturing

All Research, Development and Manufacturing for EZAutomation is done at our plant in Bettendorf, IA.

4140 Utica Ridge Road
Bettendorf, IA 52722